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PELVIC ABSCESS.

LAPAROTOMY FOR TWENTY CASES.

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Reprint from St. Louis MEDICAL REVIEW, August 5, 1893.



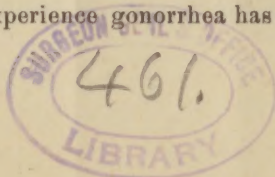
Pelvic Abscess.—Laparotomy for Twenty Cases.

BY I. S. STONE, M.D. WASHINGTON, D. C.

When specific infection extends from the vagina to the Fallopian tubes, it will in an incredibly short time, cause salpingitis. The next stage in the period of invasion is quite as uncertain as to time, although uniform in result, a closure of the fimbria upon each other, and an attachment of them to the ovary, or, perhaps, to some other adjacent organ, as for instance, the intestine. Cases frequently occur where the fimbria are spread out over the surface of the intestine like a small placenta. This will give to the examining finger in the vagina, a sensation similar to that occasioned by a pyosalpinx or tubo ovarian abscess. With the finger in the abdomen this is not easily understood as the walls of the intestine are usually greatly thickened and may be mistaken for an ovary, enlarged by suppuration or cystic degeneration.

In the complete closure before implantation we see the typical hydro- or pyosalpinx. There may be only slender attachment by a filament of adhesion of the fimbria to the ovary or intestine, and yet infection may be transmitted in this manner.

In the writer's experience gonorrhea has caused the



greater number of cases of pyosalpinx and tubo-ovarian abscess. It may be taken for granted that the pus in gonorrheal cases is not so generally diffused as in pelvic abscess from puerperal infection. Even when an extensive abscess forms, reaching far above the pubis, we may confidently expect a firmer limitation of the pus, less shock from the operation, and a quicker recovery, when the lesion is due to gonorrhea. Not so when the infection is a result of puerperal sepsis, for then we have systemic disease (infection) or "sapremia."

These remarks are preliminary to the subject proper of this paper on "Pelvic Abscess" which nearly always originates in this way. The author, as a gynecologist, would therefore define pelvic abscess as a collection of pus, primarily within the tube or ovary and peritoneal cavity, which has extended by rupture, or otherwise, to involve the peritoneum of the broad ligament, pelvic wall, uterus, intestines, mesentery, omentum, and abdominal parietes. These boundaries are always variable but a distinction must be clearly drawn between tubo-ovarian abscess, and pelvic abscess, the latter generally a result of the former, although occasionally formed by direct infection from the tube without first involving the ovary. The pointing of a pelvic abscess, as is well known to surgeons, must be due to the spread of infection to the subperitoneal (cellular?) tissue, where it meets with diminished resistance, being forced downward by the development of adhesions in the upper pelvis. In dealing with these formidable pus cases one easily becomes acquainted with the facts as stated above.

In a review of these and other operations for pus it has been abundantly proven that these views are correct. It may be asked then where are the cases of "cellulitis," "para metritis" and what is their origin? When an abscess points in the vagina it may have origin in the broad ligament as a result of hematoma as I once have seen and for which I have operated. It may spontaneously open into the rectum as I have also seen. It may, and probably does, originate, as does the abscess which follows appendicitis, first the ovary or tube adhering to the floor of the cul de sac, infection of the subperitoneal (cellular?) tissue and burrowing of pus downward. In appendicitis we have almost precisely the same course, adhesion of appendix to peritoneum, extension of infection through peritoneum and then suppuration. There is the same amount of cellular tissue under the peritoneum in the region of the ileo cecal valve as there is in the pelvis or between the layers of the broad ligament. Therefore the amount of pus present in any case does not represent the quantity of broken down cellular tissue for the pus has another source entirely. I do not wish to ignore the possibility of abscesses having origin elsewhere than in the tubes and ovaries, as in psoas abscess, nor do I wish to omit reference to pyaemic abscess which may occur in any part of the body, as we see occur in the ovary, uterus, mesentery or entirely outside the peritoneum. The limitation of these abscesses is plainly a conservative process (encystment). Peritonitis must exist in these cases. The surgeon who regards each case as one of

suppurative peritonitis will not greatly err so far as prognosis goes.

DIAGNOSIS.—It is useless to attempt in this brief space a reference to diagnosis. Equally difficult would it be to ascertain the extent of pelvic suppuration without recourse to laparotomy. The experienced physician can usually determine readily the extent of suppuration by estimating its effect upon the health of the patient. It is useless to discriminate between tubo-ovarian and pelvic abscess before operation. The expert examiner will, as a rule, easily detect the presence of pus, and the competent surgeon will not care to inflict useless pain and cause further extension of disease by repeated pelvic examination after he has once satisfied himself that suppuration is present. What is still more important is this: does the condition of the patient warrant or admit of an operation for the evacuation of pus, and, if so, by what method?

When the operation is completed and the patient is put to bed, the operator can usually give a correct opinion as to the result. When the tubo ovarian abscess has ruptured, leaving the mesentery and intestine to form a part of the abscess wall, we may confidently expect after operation a quick pulse, great shock and an anxious convalescence. The author does not understand the reports of easy recovery after operation for pelvic abscess. Some writers tell of "recovery without incident," "normal convalescence," "uninterrupted recovery" etc. I am quite willing to grant that these cases recover after the first few days of shock and

danger have passed, but that they have no "trouble during convalescence" is not in accord with my experience. We have marvellous recoveries, but nearly all of my cases have been rescued from death by operation, and some of them were saved after operation only by dint of hard work and plenty of it, on the part of intelligent nurses. I deny that any patient who has had a prolonged siege of suppurative disease can have a "normal recovery." The pulse will not be normal for days after the operation, and the temperature, while fickle and possibly quite high, or possibly subnormal, is never known to pursue a normal course after this surgery. I do not mean that these patients do not improve from the time of operation in a certain sense, for they are in a condition favorable to improvement, but they are nevertheless ill, and are in need of the utmost care in the after treatment.

RESULT OF OPERATION.—In twenty cases of pelvic abscess, fulfilling the pathological definition previously given and treated by radical operation, five have died. The remainder were cured and are well at the present time. This mortality, if estimated according to the prevalent custom of surgeons, is high; but taken as the writer would have all surgical work, classified with its kind only, the mortality then appears in its true light. It is very easy to get three per cent of mortality in some kinds of pelvic or abdominal surgery, but not in all. The writer has not observed in hospital reports any such classification as he has attempted in this paper and has no statistics, other than his own, to which

reference can be made. To compare this surgery with the usual salpingo-oophorectomy, or even with operations for pyosalpinx, is about as rational as to quote statistics for amputation of a toe with that at the hip joint.

SPONTANEOUS EVACUATION OF PELVIC ABSCESS — VAGINAL INCISION.—One or more cases of spontaneous rupture of a pelvic abscess have occurred in the author's experience, in which complete recovery resulted. One case in a girl of fifteen at the first or second attempt at menstruation, ruptured through the bowel, plainly a suppurating hematoma. A recent operation for pelvic abscess disclosed a large hematoma (which was thought due to Extra Uterine pregnancy, tubal rupture). This hematoma was just commencing to suppurate and must ultimately have formed an abscess which would have opened in bowel or vagina, as it was already between the layers of the broad ligament.

Several other cases have been seen in private where the abscess pointed and was opened through the vagina, in some cases making fairly good recoveries. It is not possible just here to speak of these cases, but there is clearly no doubt as to the propriety of opening up any abscess which points low enough to reach easily through the vagina. Two of the twenty cases herewith reported were previously treated in this manner, and although they did not recover fully until their appendages were removed, made splendid recoveries afterward. In one of these cases the opening into the sigmoid was found and closed at the final operation.

The list reported here includes every case occurring in my hospital practice for two years. Not a single case was turned away or refused operation. Some of them were "forlorn hope" cases. One patient, after admission, refused operation, left the hospital, returned in a week with severe peritonitis, which vaginal incision and subsequent peritoneal flushing failed to relieve. Four of these cases were known to have resulted from an attack of gonorrhea. One had acute suppurative peritonitis at the time of operation, No. 16. Abortion is set down as the cause of suppuration in some cases, in which gonorrhea may have been present, although positive evidence was wanting. Thus far in my service all efforts to find the gonococcus have failed.

In a series of more than sixty pus cases only one death has resulted from surgery done for the result of gonorrheal infection. This death (No. 2) was due to nephritis which clearly followed upon the attack of gonorrheal cystitis. With this single exception my mortality has been from shock and in cases of systemic infection, and as above stated, after laparotomy for abscess following abortion or delivery at term. Fourteen of this list were white with three deaths; six were negroes with two deaths. I do not for a moment regret having made an effort to save those who died. In two of the fatal cases I may have precipitated the result, and think now that flushing and gauze drainage might have prolonged life. In short "too much surgery" according to Joseph Price, may have lost the cases for me, but I cannot see why the patient is any better for the risk of

the operation and the anesthetic, unless the source of infection, the pus sac, etc., is removed.

Much has been written about the propriety of separating adhesions. My practice is to always do so if the patient can bear the necessary delay, not otherwise. Several of my cases are now living and in good health, who would almost surely have died of shock had an ideal operation been done. Of those who survived operation I can show very excellent results. Recovery has promptly set in after the shock of operation has passed away. The exceptions are these: one fecal fistula which soon closed; one, and possibly two, infected ligatures with a sinus remaining. Two of these women still menstruated many months after the removal of their suppurating and degenerated appendages. One patient has since borne a child at term.

The following condensed histories will serve to give additional information of these cases. With one exception all were done at Columbia Hospital. Dr. Kelly, the resident physician, will furnish any information requested in regard to them.

SYNOPSIS—PELVIC ABSCESS.

NUMBER.	NAME.—AGE.	CAUSE.	RESULT.	REMARKS.	DATE.
1	K. 28	Puerperal sepsis.	Recovery peritonitis but complete.	Eight months since childbirth. Continued septicemia. Disorganized appendages. Intestines matted together. Necrotic adhesions.	July 17, 1891.
2	W. 30	Gonorrhea.	Died of uremia five days after operation.	Nephritis, uremia. Abscess contained 10 oz. of pus. No peritonitis after operation.	November, 1891.
3	S. 21	Gonorrhea.	Patient had sinus from infected ligature. Still menstruates.	Had large quantity of pus both sides. Very difficult operation. Quick recovery.	November 23, 1891.
4	A. 35	Gonorrhea for years.	Recovery.	Abscess nearly reached umbilicus.	November 30, 1891.
5	G. 30	Abortion, sepsis 3 months.	Died twenty-four hours; shock	Operation similar to last. Patient a negress. No peritonitis.	December, 1891.
6	G. 27	Abortion, sepsis.	Cured.	Tumor reached far above pelvis. Like a fibroma uteri. Patient since gave birth to child at term.	February 4, 1892.
7	A. 19	Abortion.	Died on third day. Bowel injured, shock, peritonitis.	The patient went down rapidly. Heart weak before operation, did not recover its tone.	February 17 1892.
8	H. 20	Abortion.	Recovered. Now a blooming girl in perfect health.	Left tubo-ovarian abscess. Right pelvic-ovarian abscess involving bowel.	April 9, 1892.
9	H. 19	Puerperal septicemia many weeks.	Slow recovery, fecal fistula. Mania.	A slight girl. Very ill at time of operation. Good recovery considering critical condition. Fistula gradually healed. Mania for a few weeks after leaving hospital, then recovery	April 20, 1892.
10	F. 24	Puerperal sepsis. Purulent metritis or puncture. Direct infection of omentum and intestines.	Recovered nicely after two days of critical illness.	Uterus opened during operation. Closed, packed around with gauze. Intestines much injured in separating adhesions. Many sutures required.	April 30, 1892.
11	G. 30	Puerperal infection. Abscess of nine months' formation.	Recovered after extreme illness. Morphia habitue.	Gauze packing with aristol over raw surfaces. Many adventitious coats to pus sac on left side.	October 12, 1892.
12	W. ?	Abortion.	Recovered. Uterus remains firmly adherent to bowel, posterior surface.	This patient had spontaneous evacuation of two large collections of pus prior to operation which was not unusually difficult.	October 26, 1892.
13	W. 20	Recent abortion. Acute peritonitis.	Died of shock second day.	Operation quickly done, thirty minutes, but should have merely flushed cavity and drained. Intestines injured.	November 7, 1892.
14	R. 40	?	Recovered easily. Shock feared, but did not appear.	Bowel involved and a fecal fistula expected, but did not result. Less shock than in any of these cases. Bore operation well.	December 1, 1892.
15	G. ?	Abortion? Infection.	Recovered.	Sigmoid involved. Necrotic adhesions. Gauze packing.	December 3, 1892.
16	R. 26	Gonorrhea. Acute peritonitis.	Recovered after two or three days of anxiety.	Severe shock. Although operation was quickly done, she was critically ill. Quick recovery after shock subsided.	December 7, 1892.
17	H. 35	Repeated attacks of peritonitis.	Died four hours after operation.	Morphia habitue. Did not take anesthetic satisfactorily. In constant spasm. Prolonged operation.	Jan. 26, 1893.
18	J. 27	?	Recovered easily.	Large collection of pus had twice been evacuated by vaginal incision. Old tract found and closed.	
19	A. 29	Abortion.	Recovered. Bowel sutured in site of former opening of abscess.	Two years ill. Many attacks of inflammation. Very little shock followed in this case.	April 1, 1893.
20	J. 32	Gonorrhea.	Recovery. Left abscess involving bowel. Sigmoid rent closed. Right side less complicated.	Gauze packing. Glass tube. Aristol.	May 20, 1893.

